

PRELIMINARY LECTURE PROGRAM MELPRO 2022

19.09.2022 morning	Hall A	Hall B	Hall C	Hall D
8:15	OPENING CEREMONY			
8:30	PL 1 - Mariël ELSHOF MEMBRANE BASED STRATEGIES FOR WATER FOOTPRINT REDUCTION IN THE FOOD & BEVERAGE INDUSTRY			
9:20	Coffee Break			
9:40	<u>T04-SL26 / E. Dom</u> <i>AGFA'S CONTRIBUTION TO THE HYDROGEN ECONOMY: ZIRFON MIXED MATRIX MEMBRANES FOR ALKALINE HYDROLYSIS</i>	<u>T02-SL14 / V. Fíla</u> <i>CO2 SEPARATION USING MMMS BASED ON ZIF-8 AND 6FDA-POLYIMIDES- EXPERIMENTS AND GAS PERMEABILITY MODEL EVALUATIONS</i>	<u>T01-SL01 / A. Figoli</u> <i>THE DEVELOPMENT OF TOTALLY SUSTAINABLE MEMBRANES AND THE ROLE OF THE CIRCULAR ECONOMY IN THE TRANSITION TO BIO-BASED MATERIALS</i>	
10:10	<u>T04-SL27 / M. Herrero-Gonzalez</u> <i>ALTERNATIVE SCHEMES FOR ACID AND BASE PRODUCTION VIA BIPOLAR MEMBRANES ELECTRODIALYSIS USING HIGH-SALINITY BRINES</i>	<u>T02-SL15 / M. Alshurafa</u> <i>ENHANCED CO2 SEPARATION PERFORMANCE FROM PIM-1/MOF-74 THIN FILM NANOCOMPOSITE MEMBRANES</i>	<u>T01-SL02 / S. Regina</u> <i>DEVELOPMENT OF HIGHLY STABLE MEMBRANES BY USING BIOPOLYMERS</i>	<u>T07-SL59 / H. Wiegerinck</u> <i>THE INFLUENCE OF CHARGE REGULATION ON THE PERFORMANCE OF SHOCK ELECTRODIALYSIS</i>
10:30	Coffee Break with refreshment			
10:50	<u>T04-SL28 / P. Zimmermann</u> <i>BOUNDARY LAYER TRANSPORT AS A SELECTIVITY FACTOR IN ELECTRODIALYSIS OF MULTI-IONIC MIXTURES</i>	<u>T02-SL16 / R. Valek</u> <i>FABRICATION, CHARACTERISATION AND APPLICATION OF POLYMER BLEND MEMBRANES FOR O2/N2 SEPARATION</i>	<u>T01-SL03 / J. K. Jang</u> <i>GAS TRANSPORT THROUGH LARGE AREA GRAPHENE WITH INTRINSIC DEFECTS</i>	<u>T07-SL60 / D. Schödel</u> <i>MODELLING OF A SELECTIVE MEMBRANE CAPACITIVE DEIONISATION CELL</i>
11:10	<u>T04-SL29 / A. Siekerka</u> <i>COBALT SELECTIVE MEMBRANES FOR FRACTIONATION OF LITHIUM, COBALT AND NICKEL BY ELECTRODIALYSIS</i>	<u>T02-SL17 / Y. van Delft</u> <i>H2/CO2 SEPARATION USING HYBRID SILICA-BASED AND POLYPOSS-IMIDE MULTI-CHANNEL MEMBRANES</i>	<u>T01-SL04 / D. Gardenö</u> <i>SYNTHESIS AND CHARACTERIZATION OF MEMBRANES BASED ON GRAPHEN OXIDE AND CARBON NANOTUBES FOR H2 SEPARATION FROM GAS MIXTURES</i>	<u>T07-SL62 / A. Tamburini</u> <i>A MULTI-SCALE TOOL FOR SIMULATING ELECTRODIALYSIS WITH BIPOLAR MEMBRANES SYSTEMS</i>
11:30	PANEL DISCUSSION 1 - moderator Pavel IZAK (Hall B) Gas separation, air and biogas purification for environmental protection and energy sustainability.			
12:30 14:00	LUNCH			

19.09.2022 afternoon	Hall A	Hall B	Hall C	Hall D
14:00	<u>KL 03 - N. van Linden</u> NANOFILTRATION, ELECTRODIALYSIS AND REVERSE OSMOSIS TO PRODUCE CONCENTRATED BRINE AND FRESH WATER FROM COAL MINE BRINE	<u>KL 02 / O. Vopička</u> SORPTION OF SO ₂ – N ₂ GAS MIXTURES IN PIM-1	<u>KL 01 / R. Kasher</u> HYDROSTABLE METAL-ORGANIC FRAMEWORK LAYER ON ULTRAFILTRATION MEMBRANES FOR EFFICIENT SEPARATIONS: SYNTHESIS PRINCIPLES AND TREATMENT OF OILFIELD PRODUCED WATER	
14:30	<u>T04-SL30 / S. Abdulah Shah</u> GREEN ENERGY HARVESTING FROM CONCENTRATED SALTWORKS BITTERNS BY REVERSE ELECTRODIALYSIS	<u>T02-SL18 / T-M. Durdáková</u> MECHANICAL STABILITY OF GLASSY POLYMERIC MEMBRANES IN VAPOURS OF ORGANIC SOLVENTS	<u>T01-SL05 / P. Izak</u> CHIRAL COMPOSITE MEMBRANE FOR ENANTIOMER SEPARATION	<u>T07-SL58 / G. Barbieri</u> EASY TOOL FOR PREDICTION OF SEPARATION PERFORMANCE
14:50	<u>T04-SL31 / Z. Slouka</u> CONCENTRATION AND POTENTIAL PROFILES IN A DILUATE ELECTRODIALYSIS CHANNEL	<u>T02-SL19 / J. Rubner</u> MIXED GAS BEHAVIOR OF ORGANOSILICA MEMBRANES FABRICATED BY PLASMA DEPOSITION	<u>T01-SL06 / C. Youn</u> HYDROPHILIC MODIFICATION OF POLYTETRAFLUOROETHYLENE MEMBRANE WITH HIGHLY ACID-RESISTANT CROSSLINKED POLY(ETHYLENE GLYCOL) LAYER	<u>T 07-SL 78 / P. Stanovsky</u> FLUE GAS SEPRATION WITH MEMBRANE BASED ON ULTRAPERMEABLE PIM POLYMER
15:10	<u>T04-SL32 / R. Phukan</u> THE CURSE OF FOULING IN ION EXCHANGE MEMBRANES: IDENTIFICATION AND COMPARISON	<u>T02-SL20 / G. Li</u> PEBAX/PVDF THIN FILM MIXED MATRIX MEMBRANES CONTAINING HKUST-1@GO COMPOSITE FOR CO ₂ CAPTURE	<u>T01-SL07 / F. Deboli</u> HIERARCHICAL ION EXCHANGE MEMBRANES – A VERSATILE AND LOW-COST FABRICATION METHOD	<u>T07-SL61 / G. Pantoleontos</u> MODELLING, SIMULATION AND MEMBRANE WETTING ESTIMATION IN BIOGAS UPGRADING PROCESS USING DEA SOLUTIONS
15:30	<u>T04-SL33 / F. Rögener</u> ELECTRODIALYSIS FOR THE CONCENTRATION OF LITHIUM-CONTAINING BRINES – AN INVESTIGATION IN ITS APPLICABILITY	<u>T02-SL21 / I. Park</u> POROUS GRAPHENE OXIDE MEMBRANES FOR GAS SEPARATION	<u>T01-SL08 / H. Taghavian</u> IMPROVED AIR-ASSISTED SURFACE MODIFICATION OF PTFE HOLLOW FIBER MEMBRANE VIA POLYDOPAMINE INCORPORATED ZINC OXIDE NANOPARTICLES FOR WATER PURIFICATION	
15:50	<u>T04-SL34 / A. Ronen</u> ELECTRICALLY CONDUCTING MEMBRANES FOR BIOFOULING MITIGATION	<u>T02-SL22 / G. S. Medeiros</u> PROPERTIES OF HOLLOW FIBERS MEMBRANES FOR CO ₂ CAPTURE BASED ON POLY(ETHER-BLOCKAMIDE) COPOLYMERS	<u>T01-SL09 / C. Ye</u> LONG-LIFE AQUEOUS ORGANIC REDOX FLOW BATTERIES ENABLED BY AMIDOXIMEFUNCTIONALIZED ION-SELECTIVE POLYMER MEMBRANES	
16:10 18:00	POSTER SESSION + refreshment			

20.09.2022 morning	Hall A	Hall B	Hall C
8:30	<u>PL 2 - Ho Bum PARK</u> TAILORING NANOMATERIALS TO IMPROVE MEMBRANE PERFORMANCE IN GAS SEPARATION		
9:20	Coffee Break with refreshment		
9:40	<u>KL 06 / M. Jacob</u> <i>ELECTRODIALYSIS REVERSAL FOR OIL & GAS APPLICATION: PRODUCED WATER DESALINATION</i>	<u>KL 05 / P. Halvawala</u> <i>DEASHING AND CONCENTRATION OF SUGAR SOLUTION USING COMBINATION OF ELECTRODIALYSIS AND REVERSE OSMOSIS</i>	<u>KL 04 / E. Tocci</u> <i>HIGHLY STABLE GRAPHENE OXIDE COMPOSITE MEMBRANES IN AN AQUEOUS ENVIRONMENT: MOLECULAR INSIGHTS</i>
10:10	<u>T04-SL35 / H. M. S. U. Saleem</u> <i>FLOW CAPACITIVE DEIONIZATION, AN EMERGING TECHNOLOGY, FOR SUSTAINABLE RECOVERY OF LITHIUM FROM SALTWORKS BITTERNS</i>	<u>T02-SL23 / S. Y. Yoo</u> <i>TUNABLE SP2 /SP3 RATIO GRAPHENE OXIDE MEMBRANES FOR AIR DEHUMIDIFICATION</i>	<u>T01-SL10 / J. Marek</u> <i>METALLIZED NANOFIBROUS FILTER FOR REPEATABLE DEAD-END FILTRATION AND FOLLOWING DEGRADATION OF CAPTURED MICROPLASTICS</i>
10:30	<u>T04-SL36 / Ö. Tekinalp</u> <i>HYDROPHOBIC SIDE-CHAIN-TYPE ANION EXCHANGE MEMBRANES FOR MONOVALENT MONOVALENT SELECTIVITY IN ELECTRODIALYSIS</i>	<u>T03-SL24 / S. Lee</u> <i>APPLICATION OF OPTICAL COHERENCE TOMOGRAPHY (OCT) TO ANALYZE MEMBRANE FOULING UNDER INTERMITTENT OPERATION</i>	<u>T01-SL11 / S. Holdcroft</u> <i>PERMSELECTIVITY OF IONENE-BASED, AEMION® ANION EXCHANGE MEMBRANES</i>
10:50	<u>T04-SL37 / P. Mazúr</u> <i>ORGANIC AQUEOUS FLOW BATTERIES WITH OXYGEN POSITIVE ELECTRODE</i>	<u>T03-SL25 / A. Krupková</u> <i>ON THE EDGE OF NANOFILTRATION: BEHAVIOR OF TIGHT ULTRAFILTRATION REGENERATED CELLULOSE MEMBRANES IN ORGANIC SOLVENTS</i>	<u>T01-SL12 / J. Hoskovec</u> <i>PERMEABLE ELECTROSPUN MEMBRANES CHEMICALLY MODIFIED FOR CO2 CAPTURE</i>
11:10	<u>T04-SL38 / J. Strnad</u> <i>OVERLIMITING DESALINATION IN ELECTRODIALYSIS WITH STRUCTURED IONEXCHANGE MEMBRANES</i>	<u>T08-SL63 / J. Peter</u> <i>TECHNOLOGY ROADMAPING AS AN EFFECTIVE TOOL FOR SOLVING CZECH WATER MANAGEMENT PROBLEMS AND SEARCHING THERE NEW APPLICATIONS FOR MEMBRANE SEPARATIONS</i>	<u>T01-SL13 / R. Sen Gupta</u> <i>PH-TRIGGERED BIO-INSPIRED MEMBRANES ENGINEERED USING SEQUENTIAL INTERPENETRATING POLYMERIC NETWORKS FOR TUNABLE ANTIBIOTIC AND DYE REMOVAL</i>
11:30 13:00	Lunch		

20.09.2022 afternoon 1	Hall A	Hall B	Hall C
13:00	<u>PL 3 - João C. Crespo</u> MEMBRANE CONTACTORS: A BRAVE NEW WORLD OR THE SAME OLD STORY?		
13:50	Coffee Break		
14:10	<u>T04-SL39 / M. Figueira</u> <i>PRODUCTION OF BORIC ACID USING ELECTRODIALYSIS WITH BIPOLAR MEMBRANES FOR SEAWATER DESALINATION BRINES VALORIZATION</i>	<u>T10-SL71 / C.S. Nnebuo</u> <i>BACKWASHABLE HOLLOW-FIBRE POLYELECTROLYTE MULTILAYER MEMBRANES ENABLE HIGH RECOVERY EFFLUENT NANOFILTRATION</i>	<u>T05-SL48 / M. F. Vigile</u> <i>A NOVEL COATING TO ENHANCE ANTIFOULING PROPERTIES OF PES AND PVDF MEMBRANES FOR POTENTIAL SEAFOOD WASTEWATER TREATMENT</i>
14:30	<u>T04-SL40 / A. Lerch</u> <i>SELECTIVE DESALINATION OF MONOVALENT IONS BY APPLICATION OF NANOFILTRATION MEMBRANES IN CAPACITIVE DEIONISATION</i>	<u>T10-SL72 / A. Cournoyer</u> <i>EFFECTS OF PULSED ELECTRIC FIELD AND POLARITY REVERSAL ON THE SELECTIVITY OF PEPTIDES MIGRATION DURING ELECTRODIALYSIS WITH ULTRAFILTRATION MEMBRANE</i>	<u>T05-SL49 / L. Šeda</u> <i>CALCIUM SULPHATE REMOVAL FROM WASTEWATER BY MEANS OF ELECTRODIALYSIS</i>
14:50	<u>T04-SL41 / M. Bobak</u> <i>RECENT DEVELOPMENTS IN MEMBRANE PROCESSES BASED ON IONEXCHANGE MEMBRANES</i>	<u>T10-SL73 / M. Turek</u> <i>HYBRID MEMBRANE SYSTEM AS AN ALTERNATIVE TO EVAPORATORS IN ZLD TECHNOLOGIES</i>	<u>T05-SL50 / J-S. Choi</u> <i>DEVELOPMENT OF LOW ENERGY DESALINATION TECHNOLOGY USING FO, MD HYBRID SYSTEM AND SOLAR ENERGY</i>
15:10	<u>T04-SL42 / A. Cosenza</u> <i>REVERSE ELECTRODIALYSIS FOR POWER PRODUCTION FROM OILFIELD WASTEWATERS</i>	<u>T10-SL74 / A. Alhathal Alanezi</u> <i>A NEW DESIGN OF SOLAR AIR GAP MEMBRANE DISTILLATION FOR PRODUCING WATER AND ELECTRICITY</i>	<u>T05-SL51 / M. Šír</u> <i>APPLICATION OF MEMBRANE DISTILLATION FOR THE TREATMENT OF HIGH SALINE WASTEWATER</i>
15:30	Coffee Break with refreshment		

20.09.2022 afternoon 2	Hall A	Hall B	Hall C
15:50	<u>T04-SL43 / N. Koeller</u> <i>SCALE-UP OF FLOW-ELECTRODE CAPACITIVE DEIONIZATION BY CELL STACKING</i>	<u>T10-SL75 / N. Selzer</u> <i>NEW CONCEPTS FOR THE USE OF MEMBRANE CONTACTORS IN TREATMENT OF (WASTE) WATER AND THEIR IMPACT TO CLIMATE CHANGE</i>	<u>T08-SL64 / D. Vilím</u> <i>EXPERIENCE WITH MEMBRANE TECHNOLOGIES AT ENVI-PUR COMPANY</i>
16:10	<u>T04-SL44 / T. Guleria</u> <i>SELECTIVE COATED MEMBRANES FOR NA/K SEPARATION WITH CROWN ETHERS IN ELECTRODIALYSIS: ENABLING RESOURCE RECOVERY FROM GREENHOUSE WASTEWATER</i>	<u>T10-SL 76 / A. Andrzejewski</u> <i>OSMOTIC CONCENTRATION OF AQUEOUS PECTIN SOLUTION AS AN ALTERNATIVE TO THERMAL PROCESS</i>	<u>T08-SL65 / K. Friess</u> <i>HIGHLY SELECTIVE GAS SEPARATION COMPOSITE MEMBRANES PREPARED BY MOLECULAR LEVEL ENGINEERING</i>
16:30 16:50	<u>T04-SL45 / S. Das</u> <i>POLYANILINE MODIFIED CATION EXCHANGE MEMBRANE FOR IMPROVED MONOVALENT SELECTIVITY</i>	<u>T10-SL77 / MS. Kim1</u> <i>A PARAMETRIC STUDY ON AN ELECTROCHEMICAL HYDROGEN COMPRESSORS</i>	<u>T08-SL66 / P. Pracna</u> <i>HORIZON EUROPE FRAMEWORK PROGRAMME AND RELATED OPPORTUNITIES FOR RESEARCH AND INNOVATION PROJECTS IN THE INITIATIVES</i>
18:00 23:59	TOUR in OLD WASTEWATER TREATMENT PLANT		

21.09.2022 morning	Hall A	Hall B	Hall C
8:30	<u>PL 4 - Jun MA</u> DEVELOPMENT AND APPLICATION OF MULTIFUNCTIONAL NANOCOMPOSITE MEMBRANE IN WATER TREATMENT		
9:20	Coffee Break		
9:40	<u>T04-SL46 / L. M. Ahrné</u> VALORISATION OF ACID WHEY BY ELECTRODIALYSIS	<u>T08-SL67 / L. Fischer</u> THE INFLUENCE OF ANION-EXCHANGE MEMBRANE NANOSTRUCTURE ON ION TRANSPORT: ADJUSTING MEMBRANE PERFORMANCE THROUGH FABRICATION CONDITIONS	<u>T05-SL52 / Y. Kim</u> OPTIMIZATION OF CAPACITIVE DEIONIZATION (CDI) PROCESS FOR WASTEWATER REUSE IN COMBINED CYCLE POWER PLANTS
10:00	<u>T04-SL47 / S. B. B. Solberg</u> WATER AND SALT TRANSPORT IN ION EXCHANGE MEMBRANES	<u>T08-SL68 / M. Paidar</u> INFLUENCE OF WATER ELECTROLYSER TYPE ON HYDROGEN PRODUCTION FROM RENEWABLE POWER SOURCES	<u>T05-SL53 / C. Kast</u> PERFORMANCE OF CERAMIC MEMBRANES FOR REUSE OF SPENT FILTER BACKWASH WATER
10:20	<u>T06-SL56 / F. Almansour</u> ALCOHOL VAPOR TREATMENT FOR PERMEABILITY RECOVERY IN AGED PIM-1 MEMBRANES	<u>T08-SL69 / J. Peter</u> SCIENTIFIC VISUALIZATION - A POWERFULL TOOL HELPING THE SCIENTISTS TO PROMOTE THEIR RESEARCH	<u>T05-SL54 / L. Václavík</u> POLYMER FLOODING WATER DESALINATION BY HIGH-TEMPERATURE ELECTRODIALYSIS: HOMOGENNOUS MEMBRANES
10:40	<u>T06-SL57 / J. Lee</u> TREATMENT OF SEMICONDUCTOR WASTEWATER CONTAINING TETRAMETHYLAMMONIUM HYDROXIDE (TMAH) USING NANOFILTRATION (NF), REVERSE OSMOSIS (RO), AND MEMBRANE CAPACITIVE DEIONIZATION (MCDI)	<u>T08-SL70 / J. Čížek</u> ENJOY LEARNING ABOUT MEMBRANES AT EMS SUMMER SCHOOL	<u>T05-SL55 / M. J. A. Hamad</u> TECHNICAL ASSESSMENTS OF CELLULOSE ACETATE-BASED COMMERCIAL MEMBRANES HTICTA AND FTS-H2O FOR FORWARD OSMOSIS PROCESSES
11:00	Coffee Break with refresment		
11:20	PANEL DISCUSSION 2 - moderator Marek BOBAK Membrane processes for efficient water treatment, recycling and waste valorization – what are the current main R&D objectives and what will be really needed? Are the academic R&D in line with future requirements?		
12:30 13:30	CLOSING CEREMONY		